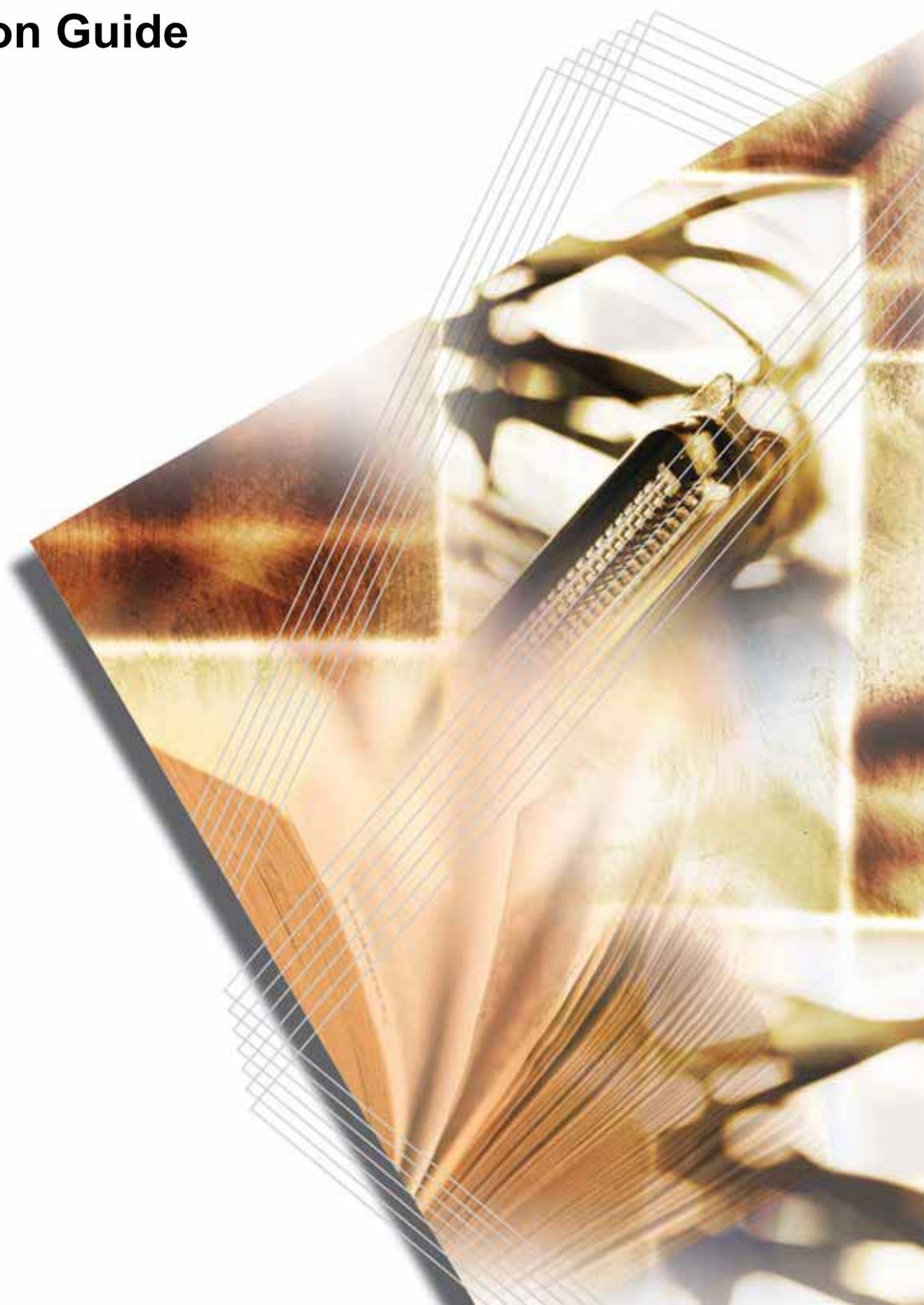


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FS-820  
FS-920

# Operation Guide





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# Legal and Safety Information

## FCC statement (for users in the United States)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment. Shielded circular cable should be used for interfacing with the computer.



## Precautions for Use

Any modification without prior permission may cause harmful interference.

If any modification/change is introduced to this equipment without prior permission, the manufacturer cannot guarantee compliance with FCC rules. To use equipment which does not comply with FCC rules is prohibited.

## Interface connectors

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**IMPORTANT:** Ensure the printer is powered off before connecting or disconnecting an interface cable to the printer.

---

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**IMPORTANT:** For protection against static discharge which may be applied to the printer's internal electronics through the interface connector(s), keep any interface connector which is not in use capped using the protective cap supplied.

---

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**NOTE:** Use shielded interface cable.

---

## Safety information

### Laser safety

This printer is certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to Radiation Control for Health and Safety Act of 1968. This means that the printer does not produce hazardous laser radiation. Since radiation emitted inside the printer is completely confined within protective housings and external covers, the laser beam cannot escape from the printer during any phase of user operation.

### Laser notice

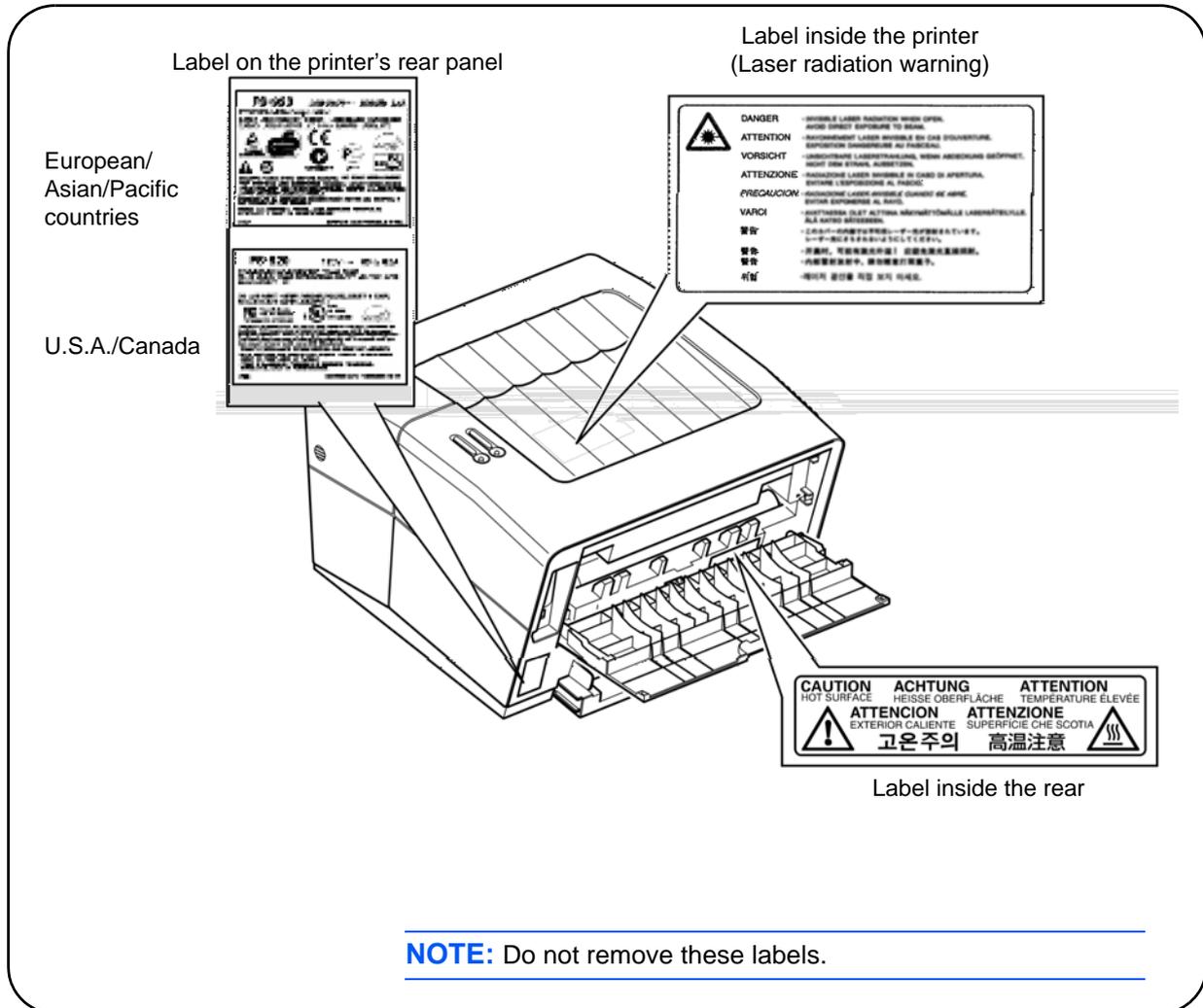
This printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, Chapter I, Subchapter for Class I (1) laser products, and elsewhere is certified as a Class I laser product conforming to the requirements of IEC 825.

**DANGER: CLASS 3B INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.**

**CAUTION:** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.



## Caution Labels



## CDRH Regulations

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 2, 1976. These regulations apply to laser products manufactured after August 1, 1976. Compliance is mandatory for products marketed in the United States. A label indicating compliance with the CDRH regulations must be attached to laser products marketed in the United States.

## Ozone Concentration

The printers generate ozone gas (O<sub>3</sub>) which may concentrate in the place of installation and cause an unpleasant smell. To minimize concentration of ozone gas to less than 0.1 ppm, we recommend the printer is not located in a confined area where ventilation may be blocked.

## IMPORTANT SAFEGUARDS

- 1** Read all of these instructions and save these instructions for later use.
- 2** Unplug this product from the wall outlet before cleaning.
- 3** Do not use this product near water.
- 4** Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- 5** Slots and openings in the cabinet and the back are provided for ventilation to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
- 6** This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
- 7** Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
- 8** If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord ampere rating.
- 9** Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
- 10** Except as explained elsewhere in the Operation Guide, do not attempt to service this product yourself. Removing covers may expose you to dangerous voltage points or other risks. Refer all servicing in those compartments to a service technician.
- 11** Unplug this product from the wall outlet and refer servicing to a qualified service technician under the following conditions:
  - When the power cord or plug is damaged or frayed.
  - If liquid has been spilled into the product.
  - If the product has been exposed to rain or water.

- If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
- If the product has been dropped or the cabinet has been damaged.

## Canadian Department of Communications compliance statement

This Class B digital apparatus complies with Canadian ICES-003.

## Avis de conformité aux normes du ministère des Communications du Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## ISO 7779

Maschinenlärminformationsverordnung 3. GSGV, 18.01.1991: Der höchste Schalldruckpegel beträgt 70 dB(A) oder weniger gemäß ISO 7779.

## CE Marking Directive

According to *Council Directive 89/336/EEC and 73/23/EEC*

Manufacturer's name: Kyocera Mita Corporation, Tamaki Plant  
Manufacturer's address: 704-19 Nojino, Tamaki-Cho, Watarai-Gun,  
Mie Ken 519-0497, Japan

Declares that the product:

Product name: Page Printer  
Model number: FS-820 / FS-920

Conforms to the following product specifications:

- EN 55 022:1998 Class B
- EN 61 000-3-2:2000
- EN 61 000-3-3:1995+A1:2001
- EN 55 024:1998
- EN 60 950:2000
- EN 60 825-1:1994+A1+A2

The manufacturer and its merchandising companies retain the following technical documentation in anticipation of the inspection that may be conducted by the authorities concerned.

- User's instruction that conforms to the applicable specifications.
- Technical drawings.
- Descriptions of the procedures that guarantee the conformity.
- Other technical information.

## Declaration of Conformity (Australia)

Manufacturer's name: Kyocera Mita Corporation, Tamaki Plant  
Manufacturer's address: 704-19 Nojino, Tamaki-Cho, Watarai-Gun,  
Mie-Ken 519-0497, Japan

Declares that the product:

Product name: Page Printer  
Model number: FS-820 / FS-920  
Description of device: This Page Printer Model FS-820 is the 16 ppm  
(FS-920 is the 18 ppm); A4 size and utilized  
plain paper; laser; dry toner etc.

Conforms to the following product specifications.

- AS/NZS 3548: 1995 (EN 55 022:1994 Class B)
- IEC60950 (EN 60 950:2000)
- IEC60825-1 (EN 60 825-1:1994+A1+A2)

The manufacturer and its merchandising companies retain the following technical documentation in anticipation of the inspection that may be conducted by the authorities concerned.

- User's instruction that conforms to the applicable specifications.
- Technical drawings.
- Descriptions of the procedures that guarantee the conformity.
- Other technical information.

Kyocera Mita Australia Pty., Ltd.  
6-10 Talavera Road, North Ryde, NSW, 2113,  
Australia  
Phone: +61 2-9888-9999  
Fax: +61 2-9888-9588

## Declaration of Conformity (U.S.A.)

Model Number: Laser Printer FS-820 / FS-920  
Trade Name: Kyocera  
Responsible Party: Kyocera Mita America Inc.  
Address: 225 Sand Road PO Box 40008 Fairfield,  
New Jersey 07004-0008, U.S.A.  
Telephone number: (973) 808-8444  
Fax number: (973) 882-6000  
  
Manufacturer's name: Kyocera Mita Corporation, Tamaki Plant  
Manufacturer's address: 704-19 Nojino, Tamaki-Cho, Watarai-Gun,  
Mie-Ken 519-0497, Japan

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The manufacturer and its merchandising companies retain the following technical documentation in anticipation of the inspection that may be conducted by the authorities concerned.

- User's instruction that conforms to the applicable specifications.
- Technical drawings.
- Descriptions of the procedures that guarantee the conformity.
- Other technical information.

Kyocera Mita America Inc.

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## Energy Star Program



As an ENERGY STAR Partner, we have determined that this product meets the ENERGY STAR guidelines for energy efficiency.

The basic objective of the ENERGY STAR Program is to reduce environmental pollution by encouraging the manufacture and sale of equipment that uses energy more efficiently.

This printer is equipped with a sleep timer function that conforms with the standards of the ENERGY STAR Program. This function makes it possible to reduce the amount of electrical power consumed by the printer. For maximum power savings, turn off the printer's power supply when not using the printer for extended periods of time.

For details on the sleep timer function and printer power consumption, refer to the CD-ROM instruction manual provided with the printer.

Initial Sleep Mode Setting	Power Consumption in Sleep Mode
5 minutes (15 minutes)	FS-820: 4.5W (20W) [220 to 240V, 50Hz/60Hz] 4.0W (20W) [120V, 60Hz] FS-920: 4.8W (20W) [220 to 240V, 50Hz/60Hz] 4.4W (20W) [120V, 60Hz]

( ): ENERGY STAR program guideline

## Group for Energy Efficient Appliances (GEEA)



The goal of GEEA is efficient use of energy. This product has a high-efficiency profile and meets the criteria for receiving the GEEA-Label.

Initial Sleep Mode Setting	Power Consumption in Sleep Mode
5 minutes (15 minutes)	FS-820: 4.5W (10W) [220 to 240V, 50Hz/60Hz] 4.0W (10W) [120V, 60Hz] FS-920: 4.8W (10W) [220 to 240V, 50Hz/60Hz] 4.4W (10W) [120V, 60Hz]

( ): GEEA criteria

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This product was developed using the Tornado™ Real Time Operating System and Tools from Wind River Systems.



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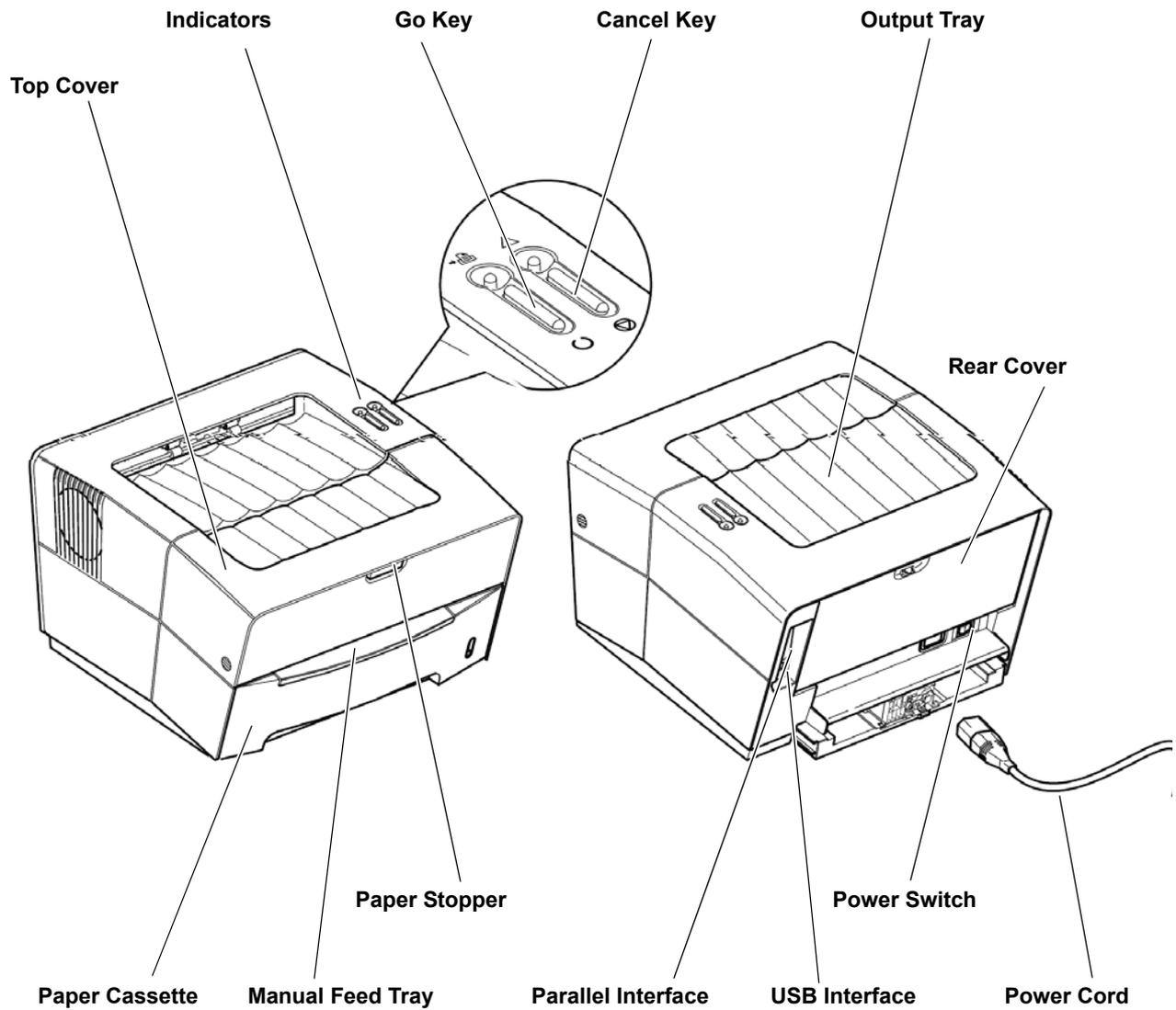
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# 1 Machine Overview



## Indicators

There are two indicators located on the top right of the printer. The indicators are used to identify the status of the printer at any time. To identify the printer status, check the indicators on the printer and then refer to the table below.

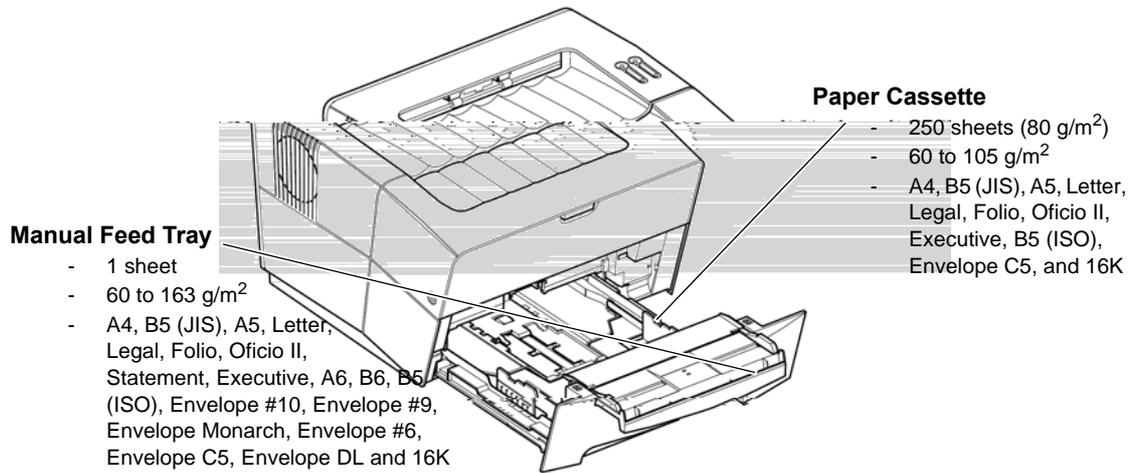
Indicator Action		Ready Indicator (green)					
		Lit	Fast Flashing	Slow Flashing	Off	Very Slow Flashing	Any Indicator
Attention Indicator (red)	Lit	X	X	X	Cover Open, Toner Container Empty, Developer Unit or Drum Unit missing	X	X
	Fast Flashing	X	Warm Up	X	Paper Jam or Waiting for Jam Reset	X	X
	Slow Flashing	X	X	X	Paper empty or Paper Cassette is not installed (during printing)	X	Toner Low, Add Paper (during ready)
	Off	On-line / Ready	Off-line	Data Processing	Power is Off	Sleeping	X

**NOTE:** For other combinations of the two indicators, call for service. *KM-NET for Clients* (a software included in the CD-ROM) will provide more detailed information about the printer status.

## Key Status

Key	Status	Operation	Function
Go	At Ready	Press momentarily	Switches On-line / Off-line
		Press for 3 to 10 seconds	Prints the status page
		Press for 10 seconds or more	Prints the service status page
	At Error	Press momentarily	Clears the error
	After Power On	Press until Ready is lit	Resets the toner counter after replacing the toner container
Cancel		Press momentarily	Stops the audible alarm
		Press for 1 second or more	Cancels the data from the PC

## 2 Loading Paper



### Paper Specifications

The following table summarizes the basic paper specifications:

Item	Specification
<b>Weight</b>	Cassette: 60 - 105 g/m <sup>2</sup> (16 to 28 lb/ream) Manual Feed Tray: 60 - 163 g/m <sup>2</sup> (16 to 43 lb/ream)
<b>Thickness</b>	0.086 to 0.110mm (3.4 to 4.3 mils)
<b>Dimensional Accuracy</b>	±0.7 mm (±0.0276 inches)
<b>Squareness of Corners</b>	90° ±0.2°
<b>Moisture Content</b>	4% to 6%
<b>Direction of Grain</b>	Long grain
<b>Pulp Content</b>	80% or more

**NOTE:** For further information about the sizes and types of media that can be used, refer to *Specifications*, on page 31.

## Prepare the Paper

After removing paper from the packaging, fan through the sheets to separate them prior to loading.

If using paper that has been folded or is curled, straighten it prior to loading. Failure to do so may result in a paper jam.

---

**IMPORTANT:** Ensure paper is not stapled and clips are removed.

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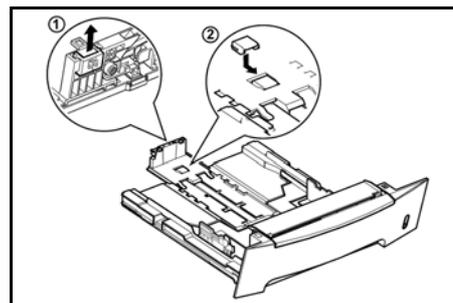
## Loading Paper into a Cassette

- 1 Pull the cassette completely out of the printer.

---

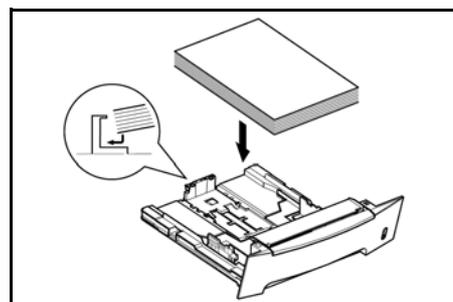
**IMPORTANT:** When pulling the cassette out of the printer, ensure it is supported and does not fall

If using Folio or Oficio II paper, remove the green stopper ① from the paper length guide and fix into position on the paper length guide ②. Pull the paper length guide towards the rear until it stops.



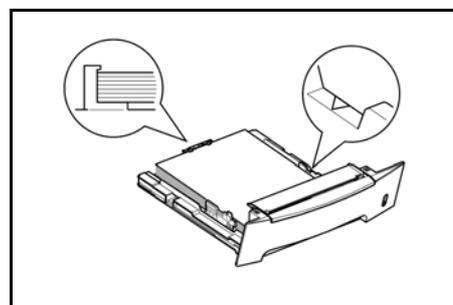
**4** Load the paper in the cassette.

**IMPORTANT:** Always adjust the paper length and width guides before loading paper to avoid skewed paper feed and/or a paper jam.



Do not load paper above the triangle mark located on the width guide.

Ensure the side to be printed is facing down and the paper is not folded, curled, or damaged.



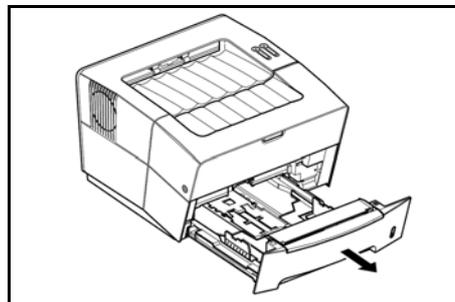
**5** Push the cassette back into the printer until it stops.



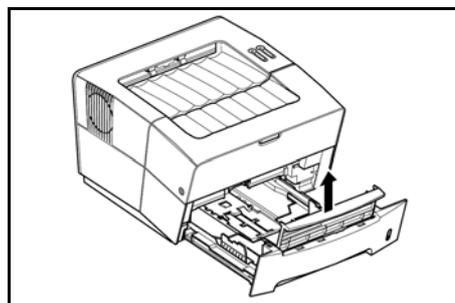
## Manual Feed Tray

Paper placed on the *Manual Feed Tray* is automatically fed and overrides the paper cassette.

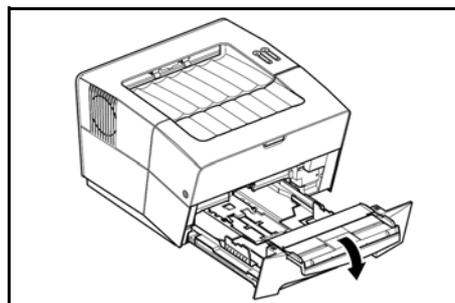
- 1** Pull out the cassette to access the *Manual Feed Tray*.



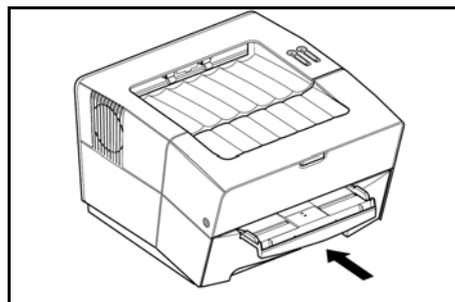
- 2** Pull the *Manual Feed Tray* up and out.



- 3** Pull out the front of the *Manual Feed Tray*.

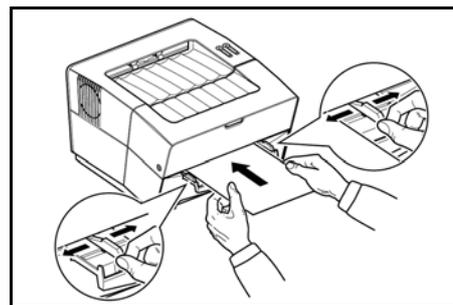


- 4** Push the cassette back into the printer.



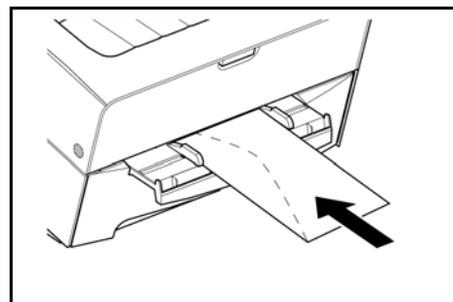
- 5** Adjust the paper width guides and slide the paper into the tray as far as it will go. The side to be printed should be face up.

Ensure the paper width guides are flush against the edge of the paper.



Envelopes should be fed in the face-up position, right edge first.

**IMPORTANT:** Load one sheet or envelope at a time.



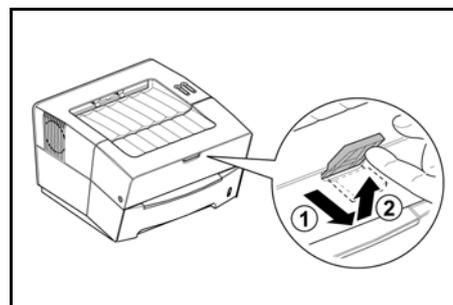
**NOTE:** Prior to purchasing envelopes, print a sample to check quality

Start printing after loading the *Manual Feed Tray*.

- 6** After use, move the width guides fully outwards and close the *Manual Feed Tray*.

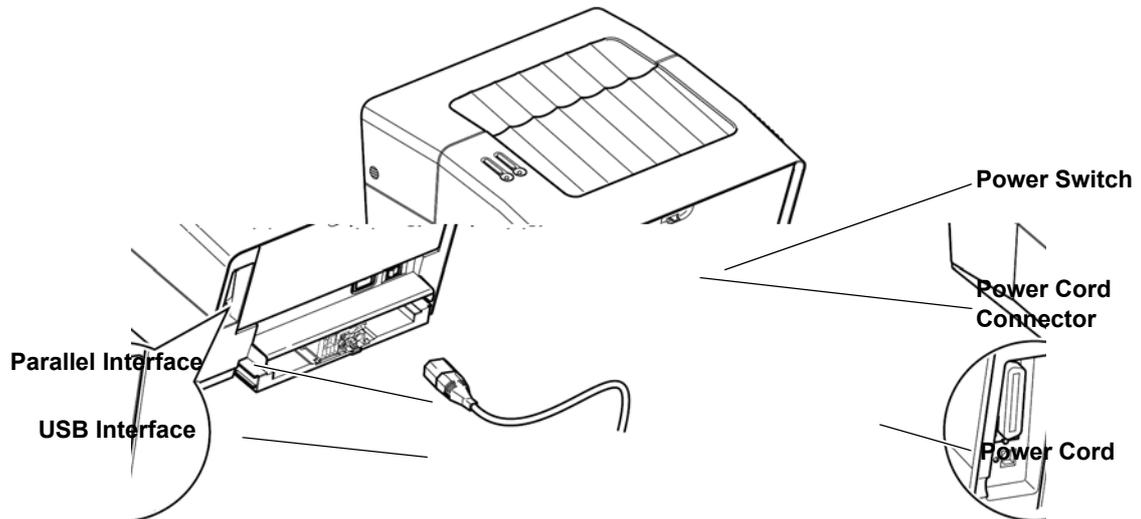
**NOTE:** For further information about the sizes and types of media that can be used, refer to *Specifications on page 31*.

- 7** Pull out the paper stopper.



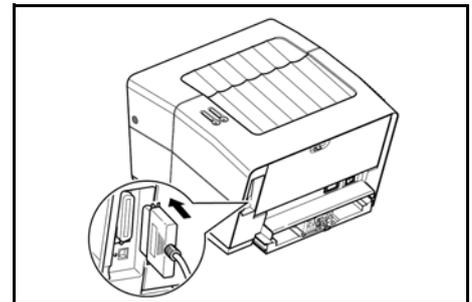


# 3 Connections



## Connecting to Parallel Interface

- 1 Connect the printer cable (not included) to the *Parallel Interface Connector*.

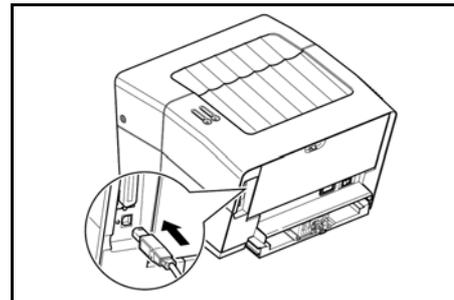


**NOTE:** Use a parallel printer cable that complies with IEEE 1284 standards. For optimum performance, install the printer close to the computer. The connection cable should be shielded and no longer than 3 meters (10 feet) long.

- 2 Close the clips on both sides to fix the connector in place.
- 3 Connect the other end of the printer cable to the computer's parallel interface connector.

## Connecting to USB Interface

- 1 Connect the USB cable (not included) to the *USB Interface Connector*.



---

**NOTE:** Use a USB cable with a rectangular Type A plug and a square Type B plug. The USB cable should be shielded and no longer than 5 meters (16 feet) long.

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- 2 Connect the other end of the USB cable to the computer's USB interface connector.

## Connecting to Power

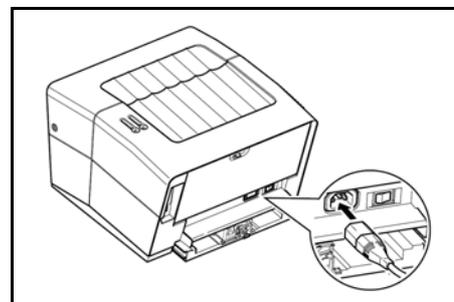
Install the printer close to an AC wall outlet. If an extension cord is used, the total length of the power cord plus extension should be 5 meters (16 feet) or less.

---

**NOTE:** Ensure the printer's power switch is off. Only use the power cord supplied with the printer.

---

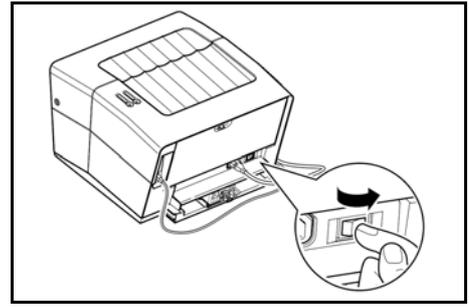
- 1 Connect the power cord to the *Power Cord Connector* at the rear of the printer.



- 2 Connect the other end of the power cord to a power outlet.

- 3 Press the *Power Switch* to On (I).

The printer begins to warm up.



**IMPORTANT:** If you install the *Toner Container* and switch on the power, two indicators will start fast flashing. When the printer is first switched on after toner installation, there will be a delay of approximately 15 minutes before the printer gets ready to print. Once the *Ready* indicator lights, printer installation is complete.



## 4 Loading Software

Ensure the printer is plugged in and connected to the computer's parallel or USB port before installing software from the CD-ROM.

- 1 Switch on the PC and activate Windows.

---

**NOTE:** If the *Welcome to the Found New Hardware Wizard* dialog box displays, select *Cancel*.

---

- 2 Insert the CD-ROM (Software Library) into the CD-ROM drive.

- 3 The installation program launches and the *License Agreement* displays.

Select *View License Agreement* to read the information and select *Accept* to proceed.



---

**NOTE:** If the installation program fails to launch, use *Windows Explorer* to access the CD-ROM and select *Setup.exe*.

---

- 4 Select *Install KX Driver* and follow the on-screen instructions to complete the software installation.



- 5 Once the installation is complete, the *Printer Installed Successfully* dialog box displays.



# 5 Printing

## Layout

Use to select *Manual Duplex* or to create multiple pages on a single sheet of paper. Also contains the scaling option.

## Imaging

Select this tab to change the print quality, and the font or graphic settings.

## Output

Use to select the number of prints and the collate option.

## Media

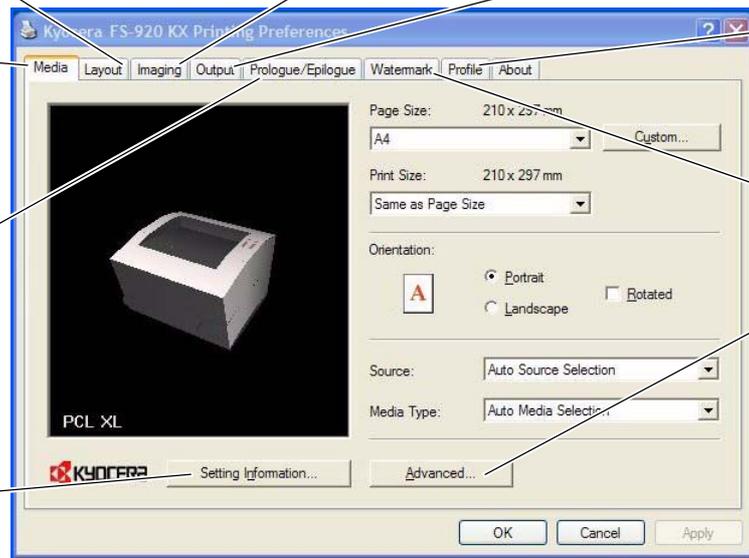
Use this tab to select the page size and orientation. The paper source is also selected.

## Prologue/Epilogue

This option incorporates the PRESCRIBE commands into the document.

## Setting Information

Use this option to view a summary of the selected options in a tree format.



## Profile

Use to save settings selected on the printer driver for regularly run jobs.

## Watermark

Use to set up and add watermarks to your output.

## Advanced

Use to add covers or page inserts to your output. You can also produce a set of transparencies with a blank or printed sheet interleaved using *Transparency Interleaving*.

---

**NOTE:** For more detailed information about the printer driver options, refer to the *KX Printer Drivers* guide.

---

## Printing a Document

- 1 Ensure the paper required is loaded in the printer.
- 2 From the application *File* menu, select *Print*. The *Print* dialog box displays.
- 3 Select the drop down list of printer names. All the printers installed are listed. Select the *FS-820* or *FS-920*.
- 4 Select the options required, enter the number of copies required and if printing more than one set, select *Collate*.

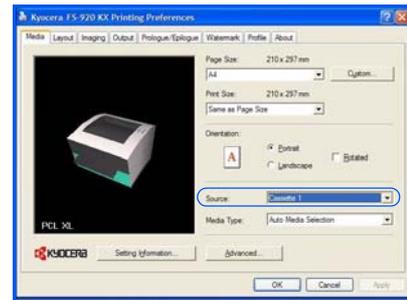
Select OK to start printing.

## Manual Duplex

Use *Manual Duplex* if you require printing on both sides of the paper. The even pages are printed first and then reloaded to print the odd pages. An instruction sheet is available to assist with loading the sheets in the correct orientation and order.

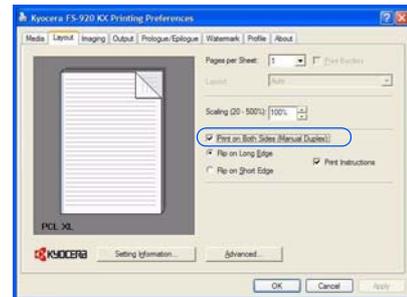
**NOTE:** Ensure *Print Instructions* is selected to receive the instruction sheet. Continue to use the sheet until you are familiar with this feature.

- 1 Ensure *Cassette 1* is selected as the *Source* in the print *Properties* dialog box.



- 2 Select the *Layout* tab and then *Print on Both Sides (Manual Duplex)*.

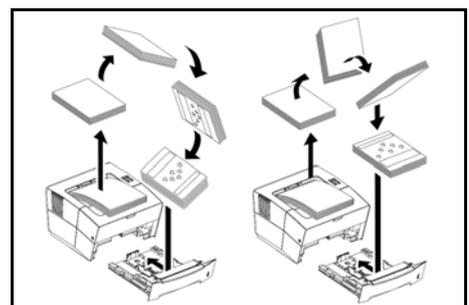
Select *Flip on Long Edge* for binding on the long edge or *Flip on Short Edge* for binding on the short edge.



Select *Gutter Settings* and enter the value required in the *Gutter* field. *Gutter* width range: 5.00 to 25.4 mm (0.20 to 1.00 inch).

- 3 Select *OK* to return to the Print dialog box and select *OK* to start printing. A *Manual Duplex* instruction message box displays.

- 4 Remove all the even pages (including the instruction sheet) from the output tray and load them into the paper cassette, with the instruction sheet facing up and the arrows pointing toward the printer.



**NOTE:** Nothing will be printed on the instruction sheet. If the paper is curled, straighten it out before loading the paper in the cassette.

- 5 Select *OK* on the *Manual Duplex* instruction message box. All the odd pages will be printed.

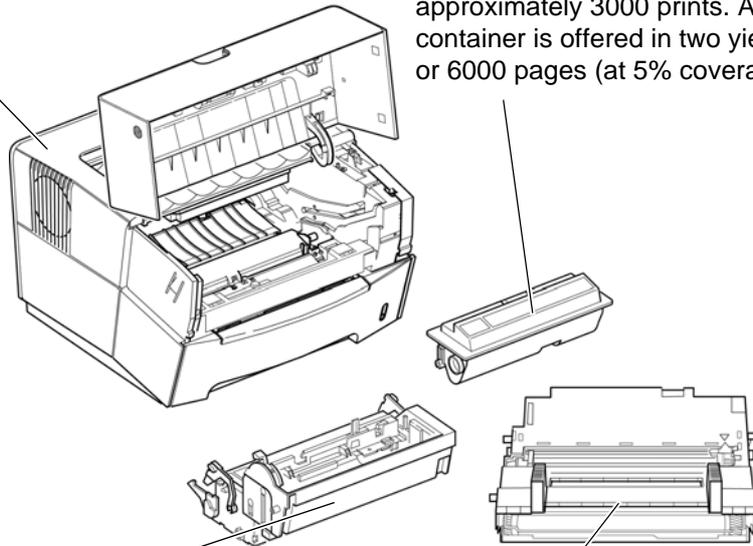
# 6 Maintenance

## Cleaning Tasks

The printer should be cleaned on a regular basis to ensure optimum performance. Use a clean, lint free cloth to clean dust and dirt from the printer.

## Toner Container

The toner container requires replacing when empty. A starter toner container provides approximately 3000 prints. A full toner container is offered in two yield types, 2000 or 6000 pages (at 5% coverage).



## Developer Unit

The developer unit should be removed to allow for cleaning tasks every time the toner container is replaced.

## Drum Unit

The drum unit should be removed to allow for printer cleaning tasks. The charger wire should be cleaned using the *Charger Cleaner* every time the toner container is replaced.

Maintenance task instructions are provided on the following pages.

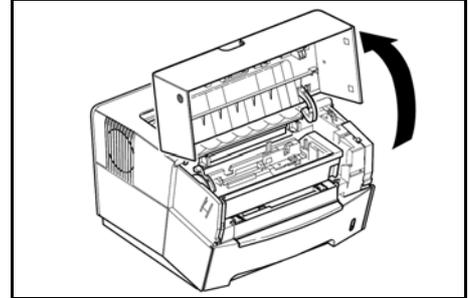
## Toner Container

To replace the *Toner Container* use the instructions below.



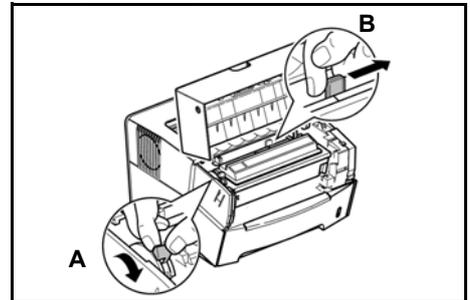
**CAUTION:** Do not attempt to incinerate the *Toner Container*. Dangerous sparks may cause burns. Do not attempt to force open or destroy the *Toner Container*.

- 1 Open the *Top Cover*.



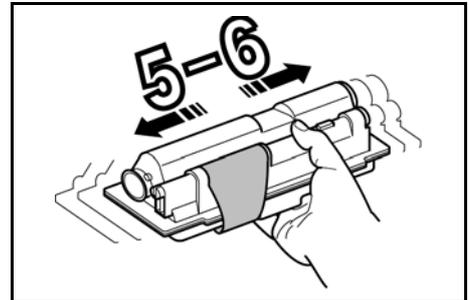
- 2 Turn *Lock Lever A* to the unlock position, push *Lock Lever B* to the right and pull out the *Toner Container*.

Place the used *Toner Container* in the plastic bag provided for disposal.

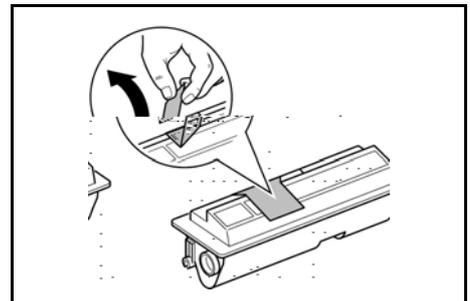


- 3 Remove the packaging from the new *Toner Container*.

Shake the container horizontally to distribute the toner evenly.

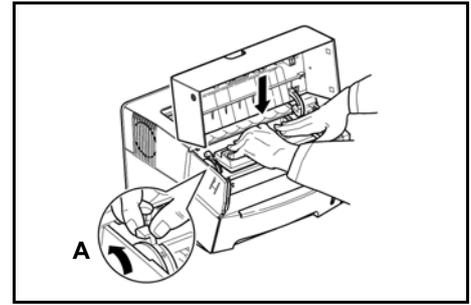


- 4 Remove the label from the *Toner Container*.



- 5 Install the new *Toner Container* in the printer. Push firmly on the top of the container at the positions marked PUSH HERE, until you hear a click.

Turn *Lock Lever A* to the lock position and close the *Top Cover*.



## Toner Container Capacity

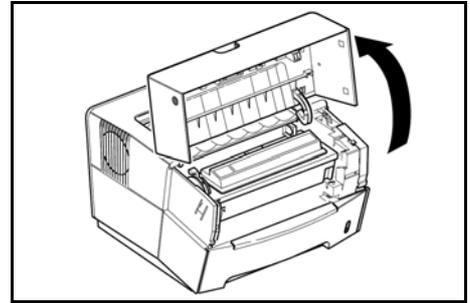
There are two different *Toner Container* capacities available for this product, one provides approximately 2000 prints and the other approximately 6000 prints. If you change from one capacity to another, perform the following steps to ensure the remaining amount of toner is shown correctly on the status page *Toner Gauge*.

- 1 Install *KM-NET for Clients* using the CD-ROM supplied and run the program.
- 2 Select the *Menu* button located on the left and then the *Menu* tab.
- 3 Select *Toner* and then *Black*.
- 4 Select *Capacity*. The *Capacity* dialog opens on the right.
- 5 In the *Capacity* drop down menu, select the appropriate capacity, *2000* or *6000* pages and select *OK*.

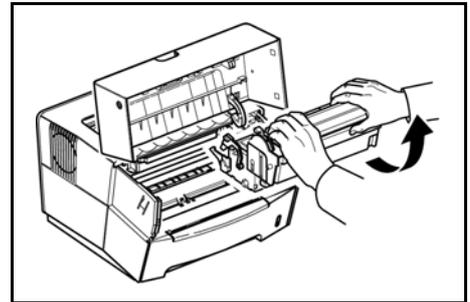
## Cleaning the Printer

To avoid print quality problems, the interior of the printer must be cleaned with every *Toner Container* replacement.

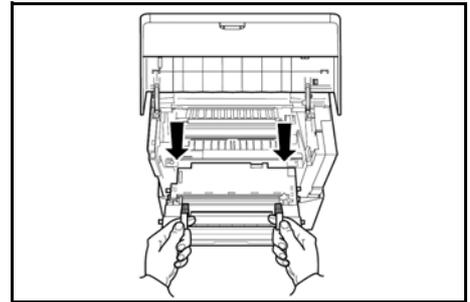
- 1** Open the *Top Cover*.



- 2** Lift the *Developer Unit* together with the *Toner Container* out of the printer.



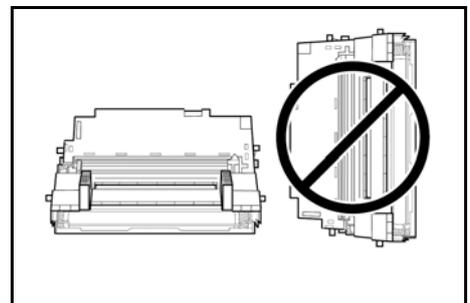
- 3** Using the green handles lift the *Drum Unit* out of the machine.



**NOTE:** The *Drum Unit* is sensitive to light. Never expose the *Drum Unit* to light for more than five minutes.

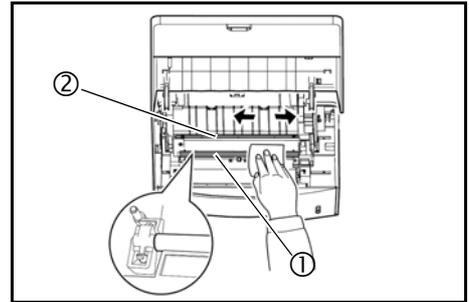
- 4** Place the *Drum Unit* flat on a clean, level surface.

**IMPORTANT:** Do not place the *Drum Unit* on end.

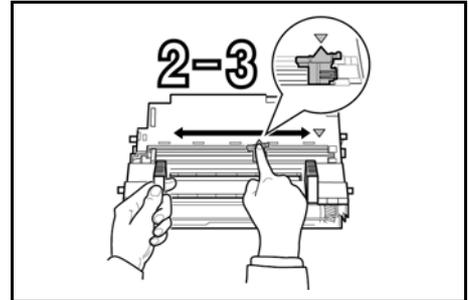


- 5** Use a clean, lint free cloth to clean dust and dirt away from the metal *Registration Roller* (metal) ①.

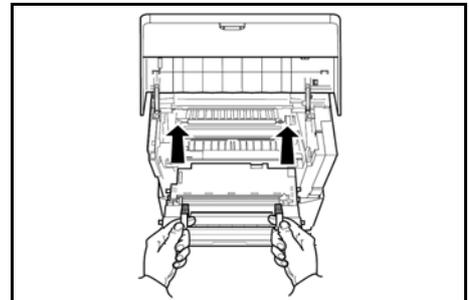
**IMPORTANT:** Take care not to touch the *Transfer Roller* (black) ② during cleaning.



- 6** Slide the *Charger Cleaner* (green) back and forth 2 or 3 times to clean the charger wire, then return it to its original position.

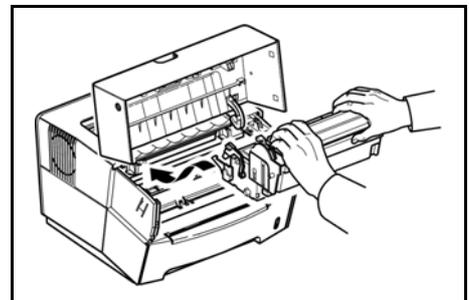


- 7** When cleaning is complete, return the *Drum Unit* to its position, aligning the guides at both ends with the slots in the printer.



- 8** Insert the *Developer Unit* together with the *Toner Container*, back into the machine.

Close the *Top Cover*.



## Prolonged Non-Use and Moving the Printer

### Prolonged Non-use

If you ever leave the printer unused for a long period of time, remove the power cord from the wall outlet.

We recommend you consult with your dealer about the additional actions you should take to avoid possible damage that may occur when the printer is used next time.

### Moving the Printer

When you move the printer:

- Move it gently.
- Keep it as level as possible to avoid spilling toner inside the printer.
- Be sure to consult a service technician before attempting long-distance transportation of the printer.

**WARNING:** If you ship the printer, remove and pack the developer unit and drum unit in a plastic bag and ship them separately from the printer.

# 7 Troubleshooting

## General Guide

There are a number of printer problems which can be corrected by a user. Use the table below to identify a problem and perform the corrective action.

Symptom	Check Items	Corrective Action
<b>The printer will not print from the computer</b>	Check the indicators	Using the information on <i>page 2</i> check if an error has occurred and clear the error.
	Check if a status page can be printed.	If the status page was printed successfully, there may be a problem with the connection to the computer. Refer to <i>page 9</i> and check the connection.
	Check the indicators display in a recognised combination, refer to <i>page 2</i> for further information.	Turn the power switch Off (O) and then On (I) again. Submit the print job again.
<b>Print quality is poor</b>		Refer to <i>page 24</i> for information.
<b>Paper is jammed</b>		Refer to <i>page 24</i> for information on jam clearance.
<b>The indicators are off and the fan is not working</b>	Check the power cable	Connect both ends of the power cable securely. Try replacing the power cable. Refer to <i>page 9</i> for information.
	Check the power switch is in the On (I) position.	Refer to <i>page 10</i> for information.
<b>The printer prints a status page but data from the computer is not being printed</b>	Check program files and application software	Try printing another file or using another print command. If the problem occurs with a specific file or application, check the printer settings for that application.

If the problem persists or cannot be corrected, please contact your *Service Technician*.

## Print Quality Problems

The table below describes potential print quality problems and the corrective action for each problem.

Printed Results	Corrective Action
<b>All black pages</b>	Contact your <i>Service Technician</i> .
<b>Dropouts, horizontal streaks or stray dots</b>	Clean the charger wire, refer to <i>page 21</i> for information.
<b>Black or white vertical streaks</b>	Check the toner container and if necessary replace. Refer to <i>page 18</i> for information.
	Clean the charger wire, refer to <i>page 21</i> for information.
	Check the charger cleaner is in its original position. Refer to <i>page 21</i> for information.
<b>Faint or blurred printing</b>	Check the toner container and if necessary replace. Refer to <i>page 18</i> for information.
	Clean the charger wire, refer to <i>page 21</i> for information.
<b>Gray background</b>	Check the toner container and if necessary replace. Refer to <i>page 18</i> for information.
	Check the developer unit and drum unit are installed correctly. Refer to <i>page 21</i> for information.
<b>Dirt on the top edge or back of the paper</b>	Check the registration roller is not soiled with toner. Refer to <i>page 21</i> for information.

## Paper Jams

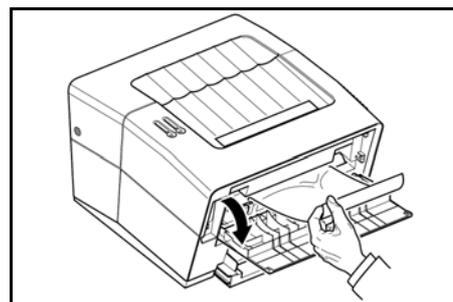
The printer will stop when a paper jam occurs in the printer or if paper is misfed. The printer will go offline and the *Attention Indicator* will fast flash.

Follow the instructions provided here to clear the jam. If paper jams occur frequently, try using a different type of paper, replace the paper using a new ream, or turn the paper over. Also, look for tiny pieces of paper which may have been left in the printer.

If the problem persists, contact your local *Service Technician* for assistance.

## Output Tray and Rear Cover

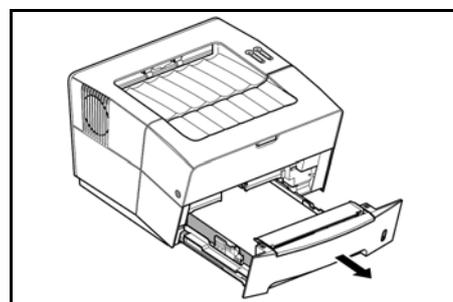
- 1 If paper is not completely ejected into the *Output Tray*, open the *Rear Cover* and remove the jammed paper by pulling it out.



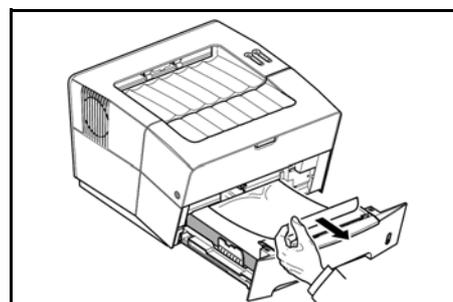
- 2 Open and close the *Top Cover* to clear the error.  
The printer warms up and resumes printing.

## Paper Cassette

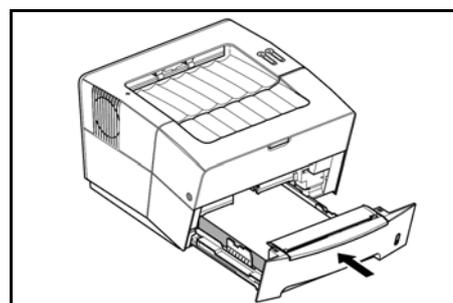
- 1 Pull out the cassette.



- 2 Remove any partially fed paper.  
Check to see if paper is loaded correctly. If not, reload the paper.



- 3 Push the cassette back in firmly.  
Open and close the *Top Cover* to clear the error.  
The printer warms up and resumes printing.



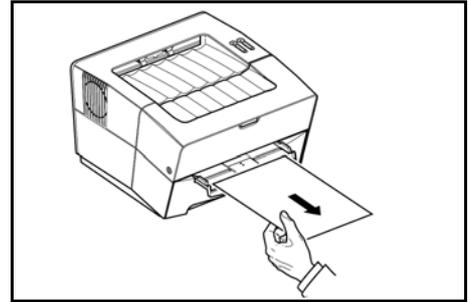
## Manual Feed Tray

- 1 Remove the paper from the *Manual Feed Tray*.

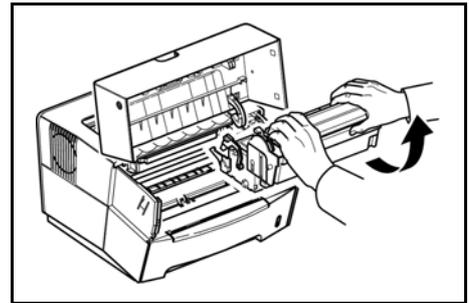
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**IMPORTANT:** Do not try to remove paper that has already been partially fed, proceed to step 2.

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- 2 Open the top cover and lift the *Developer Unit* together with the *Toner Container* out of the printer.



- 3 Using the green handles lift the *Drum Unit* out of the machine.

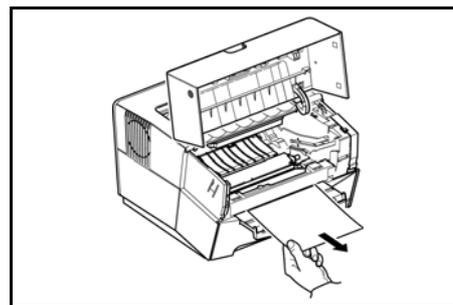
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**NOTE:** The *Drum Unit* is sensitive to light. Never expose the *Drum Unit* to light for more than five minutes.

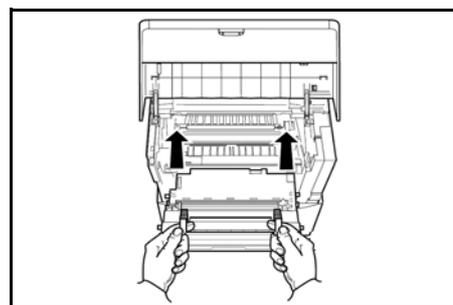
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- 4 If the jammed paper appears to be pinched by rollers, pull it along the normal running direction of the paper.

If it has not be fed as far as the metal registration roller, remove the paper from the *Manual Feed Tray* side.

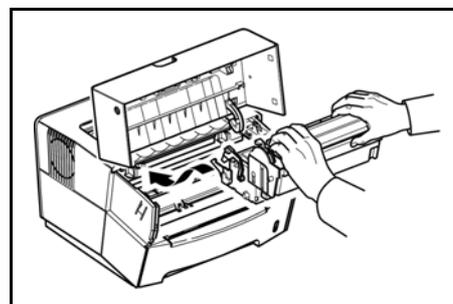


- 5** Return the *Drum Unit* to its position, aligning the guides at both ends with the slots in the printer.



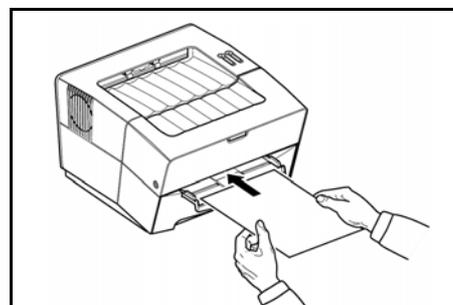
- 6** Insert the *Developer Unit* together with the *Toner Container*, back into the machine.

Close the *Top Cover*.



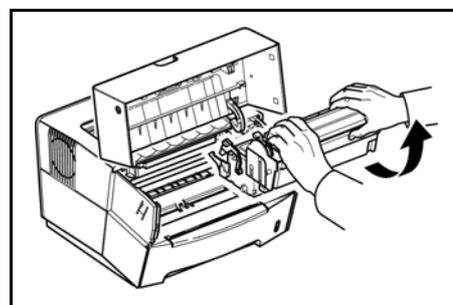
- 7** Reload the *Manual Feed Tray*.

The printer warms up and resumes printing.

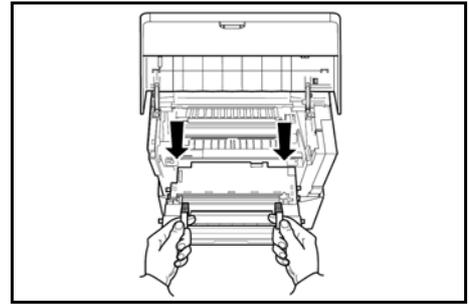


## Printer

- 1** Open the top cover and lift the *Developer Unit* together with the *Toner Container* out of the printer.



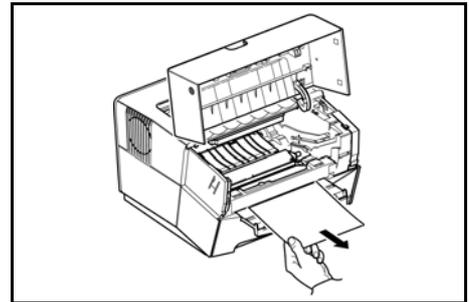
- 2** Using the green handles lift the *Drum Unit* out of the machine.



**NOTE:** The *Drum Unit* is sensitive to light. Never expose the *Drum Unit* to light for more than five minutes.

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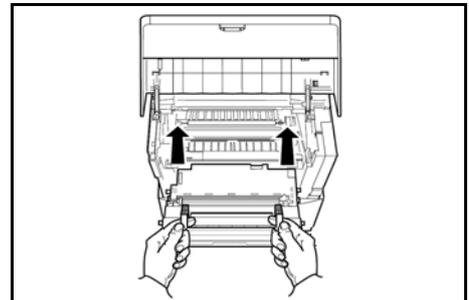
- 3** Remove the paper from the printer.



**NOTE:** If the jammed paper appears to be pinched by rollers, pull it along the normal running direction of the paper.

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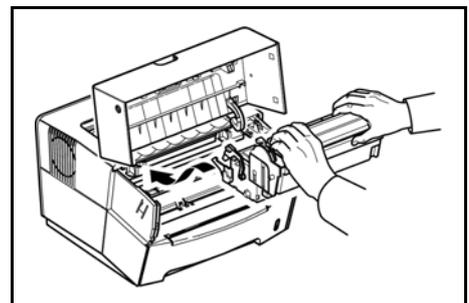
- 4** Return the *Drum Unit* to its position, aligning the guides at both ends with the slots in the printer.



- 5** Insert the *Developer Unit* together with the *Toner Container*, back into the machine.

Close the *Top Cover*.

The printer warms up and resumes printing.



## 8 Options

*Expansion Memory (DIMM)* and *Memory (CompactFlash)* card can be installed in this printer.

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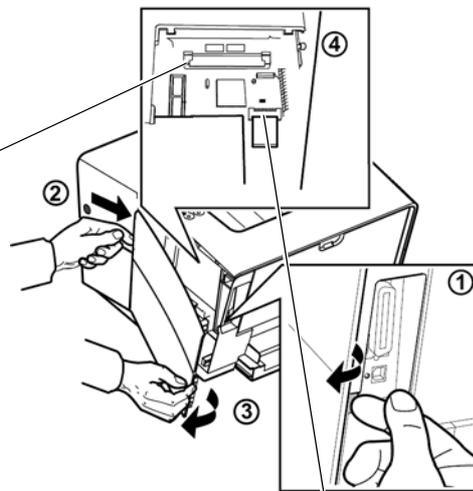
**NOTE:** Contact your dealer for information about purchasing the *Memory Card* best suited for your printer. The DIMM and Memory Card should be installed by an authorized dealer or certified *Service Technician*.

---

To install the *DIMM* and *Memory Card*, switch off the printer's power, unplug the power cable and disconnect the printer from the PC. Hook the finger to the concave portion and lift the side cover to release the latch hook ①. Slide the side cover to the right with both hand ② and remove it from the printer ③. Install the *expansion memory (DIMM)* and *memory card (CompactFlash)* in the slots provided ④.

### Expansion Memory (DIMM) Slot

This slot is provided for expanding the memory in your printer, to allow for more complex printing. The memory can be increased to a maximum of 272 MB (FS-820) or 288 MB (FS-920).



### Memory (CompactFlash) Card Slot

A *Memory Card* is a microchip card that may contain option fonts, macros, forms etc. The printer reads the contents of the card into its internal memory when switched on.



## 9 Specifications

**NOTE:** Specifications are subject to change without notice.

Item	Description
Printing Method	Electrophotography using laser scan
Printing Speed	FS-820: A4 16 pages per minute / Letter 17 pages per minute FS-920: A4 18 pages per minute / Letter 19 pages per minute
Paper Sizes <ul style="list-style-type: none"> <li>- Cassette</li> <li>- Manual Feed Tray</li> </ul>	<p>A4, B5 (JIS), A5, Folio, 8 1/2 × 14" (Legal), 8 1/2 × 11" (Letter), 8 1/2 × 13" (Oficio II), Executive, B5 (ISO), Envelope C5, 16K, Other 148 × 210 to 216 × 356 mm (5.8 × 8.3" to 8.5 × 14")</p> <p>A4, B5 (JIS), A5, Folio, 8 1/2 × 14" (Legal), 8 1/2 × 11" (Letter), 8 1/2 × 13" (Oficio II), Statement, Executive, A6, B6, B5 (ISO), Envelope #10, Envelope #9, Envelope Monarch, Envelope #6, Envelope C5, Envelope DL, 16K, Other 70 × 148 to 216 × 356 mm (2.8 × 5.8" to 8.5 × 14")</p>
Paper Types <ul style="list-style-type: none"> <li>- Cassette</li> <li>- Manual Feed Tray</li> </ul>	<p>Plain paper, recycled paper, thick paper 60 to 105 g/m<sup>2</sup> (16 to 28 lbs)</p> <p>Plain paper, recycled paper, thick paper 60 to 163 g/m<sup>2</sup> (16 to 43 lbs)</p> <p>Transparency, adhesive backed labels, envelopes and post cards supported</p>
Paper Feed Source Capacity <ul style="list-style-type: none"> <li>- Cassette</li> <li>- Manual Feed Tray</li> </ul>	<p>250 sheets</p> <p>1 sheet</p>
Output Tray Capacity	100 sheets (face-down)
Warm-up Time	16 seconds or less (power on), 12 seconds or less (sleep)
First Print	11 seconds or less
Resolution	Fast 1200 mode: 1800 × 600 dpi (2400 × 600 dpi with KIR) 600 dpi mode: 600 × 600 dpi
Monthly Duty	FS-820: Average 1,500 pages, Maximum 12,000 pages FS-920: Average 2,000 pages, Maximum 15,000 pages
Controller	FS-820: PowerPC 405 (192 MHz) FS-920: PowerPC 405 (266 MHz)

Item	Description
Memory <ul style="list-style-type: none"> <li>- Standard</li> <li>- Additional Memory</li> </ul>	FS-820: 16 MB FS-920: 32 MB FS-820: 272 MB FS-920: 288 MB
Interfaces <ul style="list-style-type: none"> <li>- Parallel</li> <li>- USB</li> </ul>	1 (IEEE 1284) 1
Operating Environment <ul style="list-style-type: none"> <li>- Temperature</li> <li>- Relative Humidity</li> <li>- Altitude</li> <li>- Illumination</li> </ul>	10 - 32.5 °C 20 - 80 % 2,000 m maximum 1,500 lux maximum
Dimensions (W) x (H) x (D)	380 x 245 x 390 mm 15 x 9.6 x 15.4"
Weight	Approx. 9.2 kg / 20.3 lbs
Operating noise (in accordance with ISO 7779 [Bystander Position, sound pressure level at the front])	≦ During printing: LpA = 49 dB (A) ≦ During standby: LpA = 28 dB (A) ≦ During sleep mode: Immeasurably low

# MEMO



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